

is not more than that of said Y_2O_3 before mixing; molding the mixture into an article having a predetermined shape; and sintering the article.

9. (Amended) A method of producing a [the] thermistor element having a mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$ of a composition $M^1M^2O_3$ and Y_2O_3 , wherein M^1 is at least one element selected from the elements of the groups IIA and IIIA excluding La in the Periodic Table, and M^2 is at least one element selected from the elements of the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII, wherein said M^1 is Y, said M^2 are Cr and Mn, and said mixed sintered body is $Y(CrMn)O_3 \cdot Y_2O_3$ [of claim 4], which comprises:

mixing an oxide of Cr with an oxide of Mn;

calcining the mixture at 1000°C or more to obtain $(Mn_{1.5}Cr_{1.5})O_4$ having an average particle diameter larger than that of said Y_2O_3 ;

mixing said $(Mn_{1.5}Cr_{1.5})O_4$ with said Y_2O_3 ;

grinding the mixture to adjust an average particle diameter of the mixture after grinding to an average particle diameter which is not more than that of said Y_2O_3 before mixing;

molding the mixture into an article having a predetermined shape; and

sintering the article.

10. (Amended) A method of producing a [the] thermistor element having a mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$ of a composition $M^1M^2O_3$ and Y_2O_3 , wherein M^1 is at least one element selected from the elements of the groups IIA and IIIA excluding La in the Periodic Table, and M^2 is at least one element selected from the elements of the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII, wherein said M^1 is Y, said M^2 are Cr and Mn, and said mixed sintered body is $Y(CrMn)O_3 \cdot Y_2O_3$ [of claim 5], which comprises:

mixing an oxide of Cr with an oxide of Mn;

calcining the mixture at 1000°C or more to obtain $(Mn_{1.5}Cr_{1.5})O_4$ having an average particle diameter larger than that of said Y_2O_3 ;

mixing said $(Mn_{1.5}Cr_{1.5})O_4$, said Y_2O_3 , and TiO_2 ;

grinding the mixture to adjust an average particle diameter of the mixture after grinding to an average particle diameter which is not more than that of said Y_2O_3 before grinding;

molding the mixture into an article having a predetermined shape; and

sintering the article.

11. (Amended) A method of producing a thermistor element having a mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$ of a composition $M^1M^2O_3$ and Y_2O_3 , wherein M^1 is at least one element selected from the elements of the groups IIA and IIIA excluding La in the Periodic Table, and M^2 is at least one element selected from the elements of the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII [claim 1], which comprises:

- mixing a raw material of said M^2 with a raw material of said M^1 ;
- grinding the mixture to adjust an average particle diameter of the mixed grind after grinding to an average particle diameter which is not more than that of the raw material of said M^1 before mixing and is not more than $0.5 \mu m$;
- calcining the mixed grind to obtain said $M^1M^2O_3$;
- mixing said $M^1M^2O_3$ obtained by said calcination with said Y_2O_3 ;
- molding the mixture into an article having a predetermined shape; and
- sintering the article.

12. (Amended) A method of producing a thermistor element having a mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$ of a composition $M^1M^2O_3$ and Y_2O_3 , wherein M^1 is at least one element selected from the elements of the groups IIA and IIIA excluding La in the Periodic Table, and M^2 is at least one element selected from the elements of the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII [of claim 1], which comprises:

- using those containing at least Y_2O_3 as a raw material of said M^1 ;
- mixing a raw material of said M^2 with the raw material of said M^1 ;
- grinding the mixture to adjust an average particle diameter of the mixed grind after grinding to an average particle diameter which is not more than that of the raw material of said M^1 before mixing and is not more than $0.5 \mu m$;
- calcining the mixed grind to obtain a precursor having the same composition as that of said mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$;
- molding said precursor obtained by said calcination into an article having a predetermined shape; and
- sintering the article.

13. (Amended) A method of producing a thermistor element having a mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$ of a composition $M^1M^2O_3$ and Y_2O_3 , wherein M^1 is at least one element selected from the elements of the groups IIA and IIIA excluding La in the Periodic Table, and M^2 is at least one element selected from the elements of the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII [of claim 1], which comprises:

- mixing a raw material of said M^2 with a raw material of said M^1 ;

grinding the mixture to adjust an average particle diameter of the mixed grind after grinding to an average particle diameter which is not more than that of the raw material of said M^1 before mixing and is not more than $0.5\ \mu\text{m}$;

calcining the ground mixture to obtain said $M^1M^2O_3$;

mixing said $M^1M^2O_3$ obtained by said calcination with said Y_2O_3 ;

grinding the mixture to adjust an average particle diameter of the mixture after grinding to an average particle diameter which is not more than that of the raw material of said Y_2O_3 before mixing;

molding the ground mixture into an article having a predetermined shape; and

sintering the article.

14. (Amended) A method of producing a thermistor element having a mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$ of a composition $M^1M^2O_3$ and Y_2O_3 , wherein M^1 is at least one element selected from the elements of the groups IIA and IIIA excluding La in the Periodic Table, and M^2 is at least one element selected from the elements of the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII [of claim 1], which comprises:
using those containing at least Y_2O_3 as a raw material of said M^1 ;

mixing a raw material of said M^2 with the raw material of said M^1 ;

grinding the mixture to adjust an average particle diameter of the mixed grind after grinding to an average particle diameter which is not more than that of the raw material of said M^1 before mixing and is not more than $0.5\ \mu\text{m}$;

calcining the ground mixture to obtain a precursor having the same composition as that of said mixed sintered body $M^1M^2O_3 \cdot Y_2O_3$;

grinding said precursor obtained by said calcination to adjust an average particle diameter of said precursor after grinding to an average particle diameter which is not more than that of the raw material Y_2O_3 as the raw material of said M^1 before mixing;

molding the ground precursor into an article having a predetermined shape; and
sintering the article.

Please add new claim 22 as follows:

--22. A wide-range type thermistor element according to claim 16, wherein said M^1 is Y, said M^2 and Cr and Mn, said M^3 is Ti, and said $M^1(M^2M^3)O_3$ is Y (Cr Mn Ti) O_3 .--